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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

In the Matter of )

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)  
Allocation and Designation of Spectrum )  
for Fixed-Satellite Services in the )  
37.5-38.5 GHz, 40.5-41.5 GHz, and )  
48.2-50.2 GHz Frequency Bands; Allocation )  
of Spectrum to Upgrade Fixed and Mobile )  
Allocations in the 40.5-42.5 GHz Frequency )  
Band, Allocation of Spectrum in the )  
46.9-47.0 GHz Frequency Band for Wireless )  
Services; and Allocation of Spectrum in the )  
37.0-38.0 GHz and 40.0-40.5 GHz Bands for )  
Government Operations. )

IB Docket No. 97-95

RM-8811

To: The Commission

**REPLY COMMENTS**

In the above-captioned Notice of Proposed Rulemaking ("NPRM"), the Commission proposes several major changes to the millimeter wave bands above 30 GHz. Pursuant to Section 1.415 of the Commission's Rules,<sup>1</sup> Alcatel Network Systems, Inc. ("Alcatel"),<sup>2</sup> by its attorneys, hereby replies to the comments filed on the NPRM.

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<sup>1</sup>47 C.F.R. §1.415 (1997). The NPRM was published in the Federal Register on April 4, 1997. 62 FR 16129. The Chief, Satellite and Radiocommunication Division, extended the deadline for filing reply comments to June 3, 1997. Order, IB Dkt. No. 97-95 (DA 97-1005, May 12, 1997).

<sup>2</sup>Alcatel is a major microwave, crossconnect and lightwave manufacturer. It is a wholly-owned subsidiary of Alcatel Alsthom, one of the world's largest corporations (with annual sales in excess of \$30 billion) and the world's largest manufacturer and supplier of telecommunications equipment. In particular, Alcatel Alsthom is the world's largest independent manufacturer and supplier of microwave radios. Formerly Collins Radio and Rockwell International, Alcatel, with over \$1 billion in annual sales, is a world leader in manufacturing microwave and lightwave transmission systems. Alcatel's equipment is used for a wide range of services, including short, medium and long-haul voice, video and data transmission. Its microwave customers include all the Bell Operating Companies, most major independent telephone companies, cellular operators, power and other utility companies, oil companies, railroads, industrial companies, and state and local government agencies.

In the NPRM, the Commission proposed an overall policy and framework for services in the 36-51.4 GHz band. Under this proposal, the 36-51.4 GHz band is segmented so that: (i) terrestrial fixed point-to-point microwave service ("FS") users, Geostationary ("GSO") and non-Geostationary ("NGSO") Fixed-Satellite Service ("FSS") users, and Mobile-Satellite Service ("MSS") users can have sufficient available spectrum; (ii) co-primary band sharing is minimized; (iii) spectrum for GSO and NGSO FSS users is allocated; and (iv) non-Government and Government sharing is promoted.<sup>3</sup> Specifically, the Commission proposed designating the non-contiguous 38.5-40.5 and 41.5-42.5 GHz bands for FS and the non-contiguous 37.5-38.5 and 40.5-41.5 GHz bands for FSS.<sup>4</sup>

In its comments, the Fixed Point-to-Point Communications Section, Network Equipment Division, of the Telecommunications Industry Association ("TIA"), generally supported the Commission's decision to eliminate unnecessary or impractical band sharing and to develop a comprehensive plan for future use of the 36-51.4 GHz band. However, TIA proposed revising the Commission's segmentation plan to satisfy the equally compelling spectrum needs of FS and satellite users. Under TIA's compromise, the Commission instead would designate the 37-40 GHz band for FS and the 40.5-42.5 GHz band for FSS. Furthermore, TIA strongly supported the Commission's decision to eliminate or reduce band sharing, and it questioned the proposed "underlay" approach. Alcatel, in its comments, concurred with TIA.

Unfortunately, the comments on the NPRM did not produce a consensus regarding how to designate the 36-51.4 GHz band for FS and FSS users. This stalemate can not continue. Thus, in its Reply Comments, filed contemporaneously herewith, TIA proposes an alternative, based upon the comments filed, that the Commission also could consider. Under this compromise, the 37.5-38.5 GHz

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<sup>3</sup>NPRM at ¶ 1.

<sup>4</sup>NPRM at ¶ 14.

band and the 40.0-41.0 GHz band would be designated exclusively for FSS and the 38.6-40.0 GHz (the "38 GHz band") would be designated exclusively for FS. TIA revised its proposal because: (i) based upon the demonstrated demand for FS in the 38 GHz band, it is crucial that this spectrum is preserved; and (ii) based upon the comments submitted on the NPRM, FSS users have a need for spectrum below 40 GHz. Alcatel agrees with TIA's proposed compromise. While TIA's initial proposal is preferable, this second approach could be a useful mechanism for facilitating resolution of the conflict between FS and FSS users.

TIA also questioned whether FSS users have documented that they have a need for additional spectrum in the 36-51.4 GHz band. Their need for this additional spectrum is especially suspect because FSS users recently were authorized to operate in the Ka band (18/28 GHz) and because the spectrum available in that band for satellite services is far from being exhausted. Thus, before FSS users can get extra frequencies in the 36-51.4 GHz band, TIA recommends that they must demonstrate that their existing spectrum in the Ka band has been used to capacity. Alcatel supports TIA's proposal.

Finally, there was a strong consensus in the comments against band sharing and against the Commission's proposed "underlay" approach. Thus, these allocation approaches must not be used in the 36-51.4 GHz band.

Any decisions made by the Commission in the NPRM must protect FS users. The fundamental role of FS, including the High Density Fixed Services ("HDFS")<sup>5</sup> emerging in the bands

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<sup>5</sup>HDFS is a form of fixed point-to-point microwave service operating at high frequencies and short paths. It is differentiated from more conventional fixed terrestrial service by its large scale deployment, utilization of wide bandwidth, and use of many different network topologies and path geometries.

above 30 GHz, must be promoted. Spectrum designation for FS and for FSS must be harmonized with international allocations.

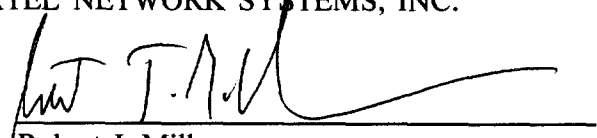
### CONCLUSION

Band sharing must not be used because it has proven to be an unacceptable spectrum management tool. For the first time, FSS users should be required to prove-up their requests for more spectrum. Sufficient spectrum must be designated to accommodate documented FS and FSS user needs. TIA's proposals accomplish these goals. Thus, Alcatel supports their adoption.

Respectfully submitted,

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June 2, 1997

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## **CERTIFICATE OF SERVICE**

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